

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Adam D. Dirstine

Examiner: Thu V. Huynh

Serial No.: 10/710,835

Group Art Unit: 2178

Filed: August 5, 2004

Docket: 977.066US1

For: METHOD FOR COMPRESSING XML DOCUMENTS INTO VALID XML DOCUMENTS

APPEAL BRIEF UNDER 37 CFR § 41.37

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The Appeal Brief is presented in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on July 14, 2010, from the Final Rejection of claims 16-17, 19-26, and 31-38 of the above-identified application (hereinafter “the Application”), as set forth in the Final Office Action mailed on April 15, 2010 (hereinafter “the Office Action”).

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of \$540.00 which represents the requisite fee set forth in 37 C.F.R. § 41.20(b)(2). The Appellant respectfully requests consideration and reversal of the Examiner’s rejections of the pending claims.

1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, Digi International Inc.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

In accordance with 37 CFR 41.37(c)(1)(iii) requiring a statement of the status of all claims, pending and canceled, Appellant submits the following:

The present patent application was filed on August 5, 2004, with claims 1-35. In a Restriction Requirement dated January 5, 2007, the claims were restricted into three independent inventions by the Examiner. Appellant elected to prosecute claims 16-26 and 31-35 without traverse.

In a non-final Office Action dated April 17, 2007, claims 16-26 and 31-35 were rejected. In a response filed June 28, 2007, claims 16, 18, and 31 were amended, and claims 36-38 were added. A Final Office Action dated September 19, 2007, rejected claims 16-26 and 31-38, as did an Advisory Action dated December 11, 2007. Claims 16-26 and 31-38 were the subject of an Appeal Brief filed February 1, 2008.

A non-final Office Action dated May 28, 2008, was received in response to the Appeal Brief, and the Office Action rejected claims 16-26 and 31-38. A Response dated September 17, 2008, amended claims 16 and 31. A Final Office Action mailed March 23, 2009, rejected claims 16-26 and 31-38.

Claims 16, 31, and 38 were amended in a Response dated June 23, 2009. A non-final Office Action dated August 21, 2009, rejected claims 16-26 and 31-38. In a Response dated December 14, 2009, claims 16, 19, and 31 were amended and claim 18 was canceled. A Final Office Action dated April 15, 2010, rejected claims 16, 17, 19-26, and 31-38. Claim 16 was amended in a Response dated June 11, 2010. An Advisory Action dated July 8, 2010, indicated that the amendment to claim 16 would be entered, but maintained the rejection to claims 16, 17, 19-26, and 31-38. Claims 16-17, 19-26 and 31-38 stand more than twice rejected, remain pending, and are the subject of the present Appeal.

4. STATUS OF AMENDMENTS

Claim 16 was amended subsequent to the Final Office Action dated April 15, 2010. An Advisory Action dated July 8, 2010, indicated that the amendment to claim 16 was entered.

5. SUMMARY OF CLAIMED SUBJECT MATTER

This summary is presented in compliance with the requirements of Title 37 C.F.R. § 41.37(c)(1)(v), mandating a “concise explanation of the subject matter defined in each of the independent claims involved in the appeal ...” Nothing contained in this summary is intended to change the specific language of the claims described, nor is the language of this summary to be construed so as to limit the scope of the claims in any way.

Aspects of the present inventive subject matter include, but are not limited to, a Method for Compressing XML Documents into Valid XML Documents.

Independent Claim 16 (FIGS. 3, 7, and 8; paragraphs 0027-0029)

Some of the embodiments claimed are related to a network device comprising at least one processor (310), a network interface (320) configured to communicate with the at least one processor and a network (330), and an XML document processing module (340) that includes a compression module (350).

The compression module is configured to compress an XML document into a compressed binary stream, convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and format the compressed ASCII text so as to form a compressed valid XML document, including replacing any invalid XML characters with standard XML replacement text, and wherein compressing an XML document into a compressed binary stream includes compressing redundant text streams in the XML document.

Independent Claim 31 (FIGS. 5, 7, and 8; paragraphs 0031-0032)

Some of the embodiments claimed are related to a system (500) for communicating XML documents. The system comprises a communication network (530) and at least first and second network devices (505A, 505B) to communicate over the network. Each network device includes at least one processor (510A, 510B), a network interface (520A, 520B) to communicate with the at least one processor and the network, and an XML document processing module (540A, 540B).

An XML document processing module includes a compression module (530A, 530B) and a decompression module (560A, 560B). The compression module (530A, 530B) is configured to compress an XML document into a compressed binary stream by compressing redundant text streams in the XML document, convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and format the compressed ASCII text so as to form a compressed valid XML document for transfer over the network. The decompression module is configured to decompress a compressed valid XML document received over the network.

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to each of the appended claims and its legal equivalents for a complete statement of the invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- I. Claims 16, 20-21, 23-25, and 31-35 are rejected under 35 U.S.C. 103(a) as being anticipated by Cseri et al. (U.S. Publication No. 2003/0046317; hereinafter “Cseri”), in view of Eller (U.S. Publication No. 2005/0278616), Petersen et al. (U.S. Publication No. 2005/0144556; hereinafter “Petersen”), and Debettencourt et al. (U.S. Publication No. 2005/0060372; hereinafter “Debettencourt”).
- II. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cseri, Eller, Petersen and Debettencourt as applied to claim 16 above, and further in view of Krasinski et al. (U.S. Patent No. 6,850,948; hereinafter “Krasinski”).
- III. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cseri, Eller, Petersen and Debettencourt as applied to claim 16 above, and further in view of Girardot et al. (U.S. Publication No. 2003/0023628; hereinafter “Girardot”).
- IV. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cseri, Eller, Petersen and Debettencourt as applied to claim 16 above, and further in view of Tycksen, Jr. et al. (U.S. Patent No. 6,189,097; hereinafter “Tycksen”).
- V. Claims 22 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cseri, Eller, Petersen and Debettencourt as applied to claim 16 above, and further in view of Ma et al. (U.S. Publication No. 2005/0063575; hereinafter “Ma”).
- VI. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cseri, Eller, Petersen and Debettencourt as applied to claim 16 above, and further in view of Hsu et al. (U.S. Publication No. 2004/0205158; hereinafter “Hsu”).

7. ARGUMENT

The Appellant traverses the rejection of the pending claims because a proper *prima facie* case of obviousness has not been established.

1) The Applicable Law under 35 U.S.C. §103(a)

The determination of obviousness requires that the Examiner meet his or her burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness.¹ As discussed by the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc. et al.*, 550 U.S. 398 (2007), the determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence.² The legal conclusion, that a claim is obvious within § 103(a), depends on at least four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966): (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

In combining prior art references to construct a *prima facie* case, the Examiner must show some objective evidence in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant portions of the references.³ However, the level of skill is generally that of the person who follows the conventional wisdom in the art.⁴ An invention can be obvious even though the reason to combine prior art teachings is not found in a specific reference.⁵ But the requirement of some reason to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, *In re Lee*,⁶ which notes that the reason must be supported by some evidence in the record.

¹ *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

² See *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1336-37, 75 USPQ2d 1051 (Fed. Cir. 2005).

³ *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

⁴ *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 454, 227 USPQ 293, 298 (Fed. Cir. 1985).

⁵ See *In re Oetiker*, 977 F.2d 1443, 1448, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992).

⁶ *In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

The *KSR* Court merely rejected a rigid application of any “teaching, suggestion, motivation” test; it recognized that a more flexible conception of the test is entirely consistent with the *Graham* analysis.⁷ The test for obviousness under § 103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention.⁸ References must be considered in their entirety, including parts that teach away from the claims.⁹ The fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.¹⁰

Notably, the *KSR* Court affirmed that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”¹¹ The Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. §103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art.¹² Moreover, when a reference teaches away from a claimed invention, it is highly probative that the reference would not have rendered the claimed invention obvious to one of ordinary skill in the art.¹³ If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.¹⁴ The CCPA has also noted that “[t]he court must be ever alert not to read obviousness into an invention on the basis of the appellant’s own statements; that is, we must view the prior art without reading into that art appellant’s teachings.”¹⁵ Thus, these principles have not been changed by the ruling in *KSR*.

⁷ *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 401, 127 S.Ct. 1727, 1731 (2007).

⁸ *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985).

⁹ See M.P.E.P. § 2141.02.

¹⁰ See generally *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430, 1432-1433 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

¹¹ See *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1335-1336 (CA Fed. 2006) (cited with approval in *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41 (2007)).

¹² See *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh’g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990).

¹³ *Stranco Inc. v. Atlantes Chemical Systems, Inc.*, 1990 WL 10072072, 15 USPQ2d 1704, 1713 (Tex. 1990).

¹⁴ See generally *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (CCPA 1959).

¹⁵ *In re Sponnoble*, 405 F.2d 578, 585, 160 USPQ 237, 243 (CCPA 1969).

2) Discussion of the rejection of claims 16, 20-21, 23-25, and 31-35 under 35 U.S.C. § 103(a) over Cseri, in view of Eller, Petersen and Debettencourt.

I. Cseri with Eller, Petersen and Debettencourt does not provide each and every element recited in independent claims 16 and 31 and incorporated into claims 20-21, 23-25, and 32-35.

Independent claim 16 recites in part:

a compression module configured to compress an XML document into a compressed binary stream, convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and format the compressed ASCII text so as to form a compressed valid XML document.

Independent claim 31 recites in part:

a compression module configured to compress an XML document into a compressed binary stream by compressing redundant text streams in the XML document, convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and format the compressed ASCII text so as to form a compressed valid XML document for transfer over the network.

An example of a method of managing XML documents is discussed in paragraphs 0017-0023 of the Patent Application.

The Office Action notes on page 4 that Cseri does not explicitly disclose *i*) converting a compressed binary stream into compressed ASCII text encoded from the compressed binary stream and *ii*) formatting the compressed ASCII test so as to form a compressed valid XML document.

The Office Action then asserts that Eller teaches converting a binary stream into [encoded] ASCII text and vice versa, and states that it would have been obvious to a person of ordinary skill in the art to combine teachings of Eller with teachings of Cseri “since the conversion would have converted different binary [files] and provided an XML document in valid form.” The Office Action also states on page 4 that Petersen teaches XML documents are compressed valid XML documents with elements and attributes in short tokens, and that it would have been obvious to combine Petersen’s and Cseri’s teachings to convert compressed binary into compressed valid XML.

However, combining Cseri, Eller and Petersen would not result in what is claimed by the Appellant.

Cseri refers to taking a well formed XML document in a text format, converting it into a binary format and converting the document back to the text format without a loss of fidelity (*see e.g.*, Cseri, ¶0014). Cseri further refers to converting from a binary format only to recreate the original XML document and not to create compressed ASCII text encoded from the compressed binary stream. Thus, the intermediate state of the document in Cseri is a binary document and not encoded compressed ASCII text.

Eller refers to converting an XML document (CMF-X) from ASCII data into binary CMF (CMF-B) data for transmission through a network (*see e.g.*, Eller ¶0018). Once passed through the network, the CMF-B data is then converted *back* into an XML recognizable format (CMF-X). Similar to Cseri, Eller refers to converting from a binary format only to recreate the original CMF-X document and not to create compressed ASCII text encoded from the compressed binary stream. Thus, the intermediate state of a document resulting from a combination of Cseri with Eller is also a binary document and not encoded compressed ASCII text.

Petersen relates to converting traditional XML documents into tokenized XML (*see Petersen ¶0083, lines 1-4*). Petersen refers to looking up XML document elements and replacing a real name with a corresponding token (¶0083, lines 12-16). Thus, Petersen operates on XML documents and does not operate on the intermediate-state binary format documents of Cseri and Eller. Also, Petersen does not operate on compressed ASCII text so as to form a compressed valid XML document, but instead operates on traditional XML documents. Thus, the proposed combination of Cseri, Eller and Petersen does not address the deficiencies of Cseri as noted by the Office Action and does not result in what is claimed by the Appellant.

The Office Action states on page 4 that Debettencourt provides a teaching missing in the combination of Cseri, Eller and Petersen. However, the asserted teaching is replacing invalid XML characters with XML text. Thus, the further addition of Debettencourt to Cseri, Eller and Petersen does not result in what is claimed by the Appellant.

i. *The Advisory Action*

The Advisory Action asserts that the claim elements indicated above are found in the Cseri, Eller and Petersen documents. However, in the cited Figure 4A of Cseri, an XML

document is tokenized to form a XML binary formatted document, and not encoded compressed ASCII text. Indeed, Cseri repeatedly refers to its invention as a binary format (*see* Cseri, ¶0063 lines 17-20, ¶0064 lines 1-3). The binary formatted document is sent over the network (¶0063 lines 17-23). In the cited Figure 4B of Cseri, when an XML binary document is received over the network, it is converted to text and passed to a standard text parser (¶0063 lines 20-23 and ¶0067) and then used by a program. Cseri does not disclose “[converting] a compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and [formatting] the compressed ASCII text so as to form a compressed valid XML document.” As explained previously and similar to Cseri, Eller converts an XML document from ASCII data into binary data for transmission through a network and converts the received binary format only to recreate the original document (*see* Eller, FIG. 2 and ¶0018). Thus, the cited portions of Cseri and Eller refer to re-converting a binary formatted document back into the original XML document and not into the compressed ASCII text, valid XML document recited in the claims. The cited portions of Petersen refer to tokenizing a standard XML document (*see* Petersen, ¶0083). Thus, Petersen does not operate on the binary documents of Cseri and Eller, and the addition of Petersen to Cseri and Eller does not create the encoded compressed ASCII text, valid XML document recited in the claims.

ii. Regarding independent claim 31 and dependent claim 20:

Independent Claim 31 recites in part:

an XML document processing module including a decompression module configured to decompress a compressed valid XML document received over the network.

Dependent claim 20 recites in part:

wherein the XML document processing module includes a decompression module to decompress compressed valid XML documents.

Cseri refers to a parser to convert an XML binary formatted document to parsed XML data (*see* Cseri, ¶0067) and does not disclose decompressing. Eller also refers to a parser converting binary data to XML recognizable ASCII format (*see* Eller ¶0018) and also does not disclose decompressing. Petersen refers to an XML schema to translate a tokenized XML

document to reconstruct a non-tokenized XML document (*see* Petersen, ¶0090), but Petersen does not disclose decompressing the compressed valid XML document as recited in claim 1. Therefore, the combination of Cseri, Eller and Petersen does not disclose the elements of claims 31 and 20.

iii. Discussion of the rejection of dependent claim 20 in view of Cseri and Sullivan.

The Office Action on page 5 also rejects claim 20 as being obvious in view of Cseri and Sullivan et al. (U.S. Patent No. 7,007,105, hereinafter “Sullivan”).

The rejection is respectfully traversed. The Office Action notes that Cseri does not teach a decompression module to decompress compressed valid XML documents, but asserts that this is found in Sullivan. However, Sullivan describes transmitting a compressed string of binary information. Systems receiving this binary representation decompress the binary stream. (*See* Sullivan, col. 4, lines 60-63.) Thus, Sullivan refers to compressing into binary information and does not teach or suggest converting compressed XML documents into text so as to form compressed valid XML documents. As set forth above, Cseri uses a binary format and teaches away from a compression module to convert compressed XML documents into text. Therefore, the proposed combination of Cseri and Sullivan refers to compressed binary information and fails to teach or suggest either converting compressed XML documents into text so as to form compressed valid XML documents, or to decompressing compressed valid XML documents.

iv. Regarding dependent claims 32 and 21:

Claim 32 recites in part:

wherein the first network device is an embedded device server, the first network device operable to receive a device configuration file as a compressed valid XML document and decompress the document.

Claim 21 recites in part:

wherein the network device is an embedded device server operable to manage a remote device using XML documents.

The Office Action asserts that these elements are disclosed in Cseri. However, the cited portion of Cseri is merely a general reference to client workstations, servers, or other devices (*see* Cseri ¶0020), and Cseri does not refer to an embedded device server to receive a device

configuration file. Thus, Cseri, Eller, Petersen and Debettencourt do not provide each and every element recited or incorporated into these claims.

The other dependent claims, namely claims 23-25 and 33-35, depend from and further define claims 16 and 31 and are believed to be allowable at least for the reasons given above regarding the independent claims.

II. Cseri and Eller teach away from the claimed subject matter.

Cseri states that “binary formatting minimizes parsing time and the generation of overhead incident to the formatting and parsing of data,” and that “binary as utilized herein is in contradistinction to ASCII, or text based character representations.” See Cseri, Abstract and ¶0155. Thus, Cseri teaches away from converting “compressed XML documents into text so as to form compressed valid XML documents.”

Additionally, Cseri and Eller teach away from [formatting] the compressed ASCII text so as to form a compressed valid XML document for transfer over a network, as recited in claim 31. Cseri relates to a technique for incorporating binary formatting into a tag-based description language such as XML (*see* Cseri, Abstract). Cseri states that the binary format is to reduce parsing time at a recipient computing device (¶0004). Thus, Cseri teaches away from forming a compressed valid XML document for transfer over a network. As noted above, Eller refers to converting an XML document (CMF-X) from ASCII data into binary CMF (CMF-B) data for transmission through a network. Eller states that a binary representation is efficient for transmission through networks, particularly those where bandwidth and critical timing constraints are encountered (*see* Eller, ¶¶0017-0018). Thus, Eller also teaches away from forming a compressed valid XML document for transfer over a network, and instead refers to advantages of sending binary documents over a network. Therefore, the proposed combination of Cseri, Eller, Petersen and Debettencourt teaches away from what is claimed by the Appellant in independent claims 16 and 31.

In summary, a proper *prima facie* case of obviousness does not exist for claims 16, 20-21, 23-25, and 31-35 at least because Cseri with Eller, Petersen and Debettencourt does not establish all of the elements of recited in claims 16 and 31 and incorporated into claims 20-21, 23-25, and 32-35, and because the proposed combination of Cseri, Eller, Petersen and Debettencourt teaches

away from what is claimed by the Appellant. The rejection constitutes clear error and should be reversed.

3) Discussion of the rejection of claims 36-38 under 35 U.S.C. § 103(a) over Cseri, in view of Eller, Petersen, Debettencourt and Krasinski.

I. Cseri with Eller, Petersen, Debettencourt and Krasinski does not provide each and every element incorporated into claims 36-38 from independent claims 16 and 31.

Claim 36 depends on base claim 16, and claims 37-38 ultimately depend on base claim 31. As explained above, Cseri, Eller, Petersen and Debettencourt fail to provide each and every element of the base claims. Krasinski fails to provide the missing elements, such as an XML processing module to

convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and format the compressed ASCII text so as to form a compressed valid XML document.

II. Cseri with Eller, Petersen, Debettencourt and Krasinski does not provide each and every element recited in claims 36-38.

Regarding claims 36 and 37, as noted above in section 7(2)I, Cseri with Eller, Petersen and Debettencourt does not provide the converted compressed valid XML document recited in the claims. Krasinski is relied upon for its reference to a tag element. Thus, Cseri with Eller, Petersen, Debettencourt and Krasinski does not establish every element recited in claims 36 and 37.

Regarding claim 38, Appellant cannot find a decompression module configured to decompress a compressed valid XML document received over the network. The Office Action asserts on page 9 that this is found in Cseri. However, as explained above, Cseri actually teaches away from forming a compressed valid XML document for transfer (e.g., receiving) over a network. Thus, Cseri, Eller, Petersen, Debettencourt and Krasinski fail to provide each and every element of the base claims.

III. *One of ordinary skill in the art would not reasonably be led to combine Cseri with Krasinski.*

Cseri apparently includes a tokenized binary XML tag (*see* Cseri, ¶0124), and Krasinski is relied upon for its reference to a tag element (*see* Krasinski, Fig. 2). One of ordinary skill in the art would not reasonably be led to combine the binary document of Cseri with the tag element of Krasinski because doing so would result in redundant tags.

Accordingly, a proper *prima facie* case of obviousness does not exist for claims 36-38 at least because Cseri with Eller, Petersen, Debettencourt and Krasinski does not establish all of the elements of recited or incorporated into the claims, and because one of ordinary skill in the art would not reasonably be led to combine Krasinski with Cseri. The rejection constitutes clear error and should be reversed.

4) **Discussion of the rejection of claim 17 under 35 U.S.C. § 103(a) over Cseri, in view of Eller, Petersen, Debettencourt and Girardot.**

I. *Cseri with Eller, Petersen, Debettencourt and Girardot and the Office Action's reasoning do not provide every claim element incorporated into claim 17 from claim 16.*

Claim 17 depends on base claim 16. As set forth above, the cited portions of Cseri, Eller, Petersen and Debettencourt do not provide all of the elements incorporated into claim 17 from claim 16. Girardot is apparently used for its reference to deflate compression. Thus, Girardot and/or the reasoning of the Office Action fail to provide the missing elements, such as:

an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents,

as incorporated into claim 17 from base claim 16.

Thus, Cseri, Eller, Petersen, Debettencourt and Girardot, either individually or in combination with the reasoning of the Office Action, do not establish all of the elements incorporated into claim 17 from claim 16. Therefore, a proper *prima facie* case of obviousness does not exist. The rejection constitutes clear error and should be reversed.

5) Discussion of the rejection of claim 19 under 35 U.S.C. § 103(a) over Cseri, in view of Eller, Petersen, Debettencourt and Tycksen.

I. Cseri with Eller, Petersen, Debettencourt and Tycksen and the Office Action's reasoning do not provide every claim element incorporated into claim 19 from claim 16.

Claim 19 depends on base claim 16. As set forth above, the cited portions of Cseri, Eller, Petersen and Debettencourt do not provide all of the elements incorporated into claim 19 from claim 16. Tycksen is apparently used for its reference to an encoding algorithm. Thus, Tycksen and/or the reasoning of the Office Action fail to provide the missing elements, such as:

an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents

as incorporated into claim 19 from base claim 16.

Thus, Cseri, Eller, Petersen, Debettencourt and Tycksen, either individually or in combination with the reasoning of the Office Action, do not establish all of the elements incorporated into claim 19 from claim 16.

II. One of ordinary skill would not reasonably be led to combine Cseri and Tycksen.

The differences in the references would have made it unlikely that one of ordinary skill in the art at the time of the invention would look to combine Tycksen with Cseri. Cseri states that the XML binary format of its present invention minimizes the parsing and generation of overhead in connection with XML documents. (See Cseri, ¶0014.) Tycksen refers to where binary content is converted to the ASCII code set and that the size of the binary content will increase. (See Tycksen, col. 9, lines 9-11.) Thus, the conversion of binary content in Tycksen would frustrate the minimizing referred to in Cseri.

Therefore, a proper *prima facie* case of obviousness does not exist at least because the cited references do not establish each and every element of the claims and because one of ordinary skill would not reasonably be led to combine Tycksen with Cseri. The rejection constitutes clear error and should be reversed.

6) Discussion of the rejection of claims 22 and 34 under 35 U.S.C. § 103(a) over Cseri, in view of Eller, Petersen, Debettencourt and Ma.

Claim 22 depends on base claim 16, and claim 34 depends on base claim 34. As set forth above, the cited portions of Cseri, Eller, Petersen and Debettencourt do not provide all of the elements incorporated into claim 22 from claim 16 or the elements incorporated into claim 34 from base claim 31. Ma is apparently used for its reference to a serial port. Thus, Ma and/or the reasoning of the Office Action fail to provide the missing elements, such as:

an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents

as incorporated into claims 22 and 34 from base claims 16 and 31, respectively.

Thus, Cseri, Eller, Petersen, Debettencourt and Ma, either individually or in combination with the reasoning of the Office Action, do not establish all of the elements incorporated into claims 22 and 34. The rejection constitutes clear error and should be reversed.

7) Discussion of the rejection of claim 26 under 35 U.S.C. § 103(a) over Cseri, in view of Eller, Petersen, Debettencourt and Hsu.

Claim 26 ultimately depends on base claim 16. As set forth above, the cited portions of Cseri, Eller, Petersen and Debettencourt do not provide all of the elements incorporated into claim 26 from claim 16. Hsu is apparently used for its reference to a WLAN. Thus, Hsu and/or the reasoning of the Office Action fail to provide the missing elements, such as:

an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents

as incorporated into claim 26 from base claim 16.

Thus, Cseri, Eller, Petersen, Debettencourt and Hsu, either individually or in combination with the reasoning of the Office Action, do not establish all of the elements incorporated into claim 26 from claim 16. The rejection constitutes clear error and should be reversed.

SUMMARY

For the reasons explained above *i*) claims 16, 20-21, 23-25, and 31-35 were not properly rejected under § 103(a) as being unpatentable over Cseri, Eller, Petersen and Debettencourt, *ii*) claims 36-38 were not properly rejected under § 103(a) as being unpatentable over Cseri, Eller, Petersen, Debettencourt and Krasinski, *iii*) claim 17 was not properly rejected as being unpatentable over Cseri, Eller, Petersen, Debettencourt and Girardot, *iv*) claim 19 was not properly rejected as being unpatentable over Cseri, Eller, Petersen, Debettencourt and Tycksen, *v*) claims 22 and 34 were not properly rejected as being unpatentable over Cseri, Eller, Petersen, Debettencourt, and Ma, and *vi*) claim 26 was not properly rejected under § 103(a) as being unpatentable over Cseri, Eller, Petersen, Debettencourt and Hsu.

It is respectfully submitted that these documents do not render the claims obvious. Therefore, reversal of the rejection and allowance of the pending claims are respectfully requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date September 2, 2010

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: MS Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 2nd day of September 2010.

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CLAIMS APPENDIX

16. A network device comprising:
 - at least one processor;
 - a network interface configured to communicate with the at least one processor and a network; and
 - an XML document processing module, including a compression module configured to:
 - compress an XML document into a compressed binary stream,
 - convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and
 - format the compressed ASCII text so as to form a compressed valid XML document, including replacing any invalid XML characters with standard XML replacement text, and wherein compressing an XML document into a compressed binary stream includes compressing redundant text streams in the XML document.
17. The network device of claim 16, wherein the XML document processing module is configured to compress the XML document into the compressed binary stream using a deflate compression algorithm.
19. The network device of claim 16, wherein the binary to ASCII text encoding algorithm includes a base-64 encoding algorithm.
20. The network device of claim 16, wherein the XML document processing module includes a decompression module to decompress compressed valid XML documents.
21. The network device of claim 16, wherein the network device is an embedded device server operable to manage a remote device using XML documents.
22. The network device of claim 16, wherein the network interface includes a serial port.

23. The network device of claim 16, wherein the network interface includes a web interface.
24. The network device of claim 16, wherein the network is a wireless network.
25. The network device of claim 24 wherein the network device is included in a cell phone.
26. The network device of claim 24 wherein the network is a wireless local area network (WLAN) and the network device is included in a WLAN computer card.

31. A system for communicating XML documents, the system comprising:
a communication network; and
at least first and second network devices to communicate over the network, wherein each network device includes:
at least one processor;
a network interface to communicate with the at least one processor and the network; and
an XML document processing module, wherein the XML document processing module includes:
an XML document processing module, including a compression module configured to:
compress an XML document into a compressed binary stream by compressing redundant text streams in the XML document;
convert the compressed binary stream into compressed ASCII text encoded from the compressed binary stream, and
format the compressed ASCII text so as to form a compressed valid XML document for transfer over the network; and
a decompression module configured to decompress a compressed valid XML document received over the network.

32. The system of claim 31, wherein the first network device is an embedded device server, the first network device operable to receive a device configuration file as a compressed valid XML document and decompress the document.
33. The system of claim 31, wherein the first network device is operable to transfer a status message as a compressed valid XML document to the second network device.
34. The system of claim 31, wherein the network is a serial communication network.
35. The system of claim 31, wherein the network is a wireless communication network.
36. The network device of claim 16, wherein the compression module is configured to:
compress a first XML document into a binary stream;
convert the binary stream into a compressed valid XML document; and
associate at least one XML tag with the compressed valid XML document, wherein the XML tag identifies the document as a compressed XML document.
37. The system of claim 31, wherein the compression module is configured to:
compress a first XML document into a binary stream;
convert the binary stream into a compressed valid XML document; and
associate at least one XML tag with the compressed valid XML document, wherein the XML tag identifies the document as a compressed XML document.
38. The system of claim 37, wherein the decompression module is configured to:
receive the compressed valid XML document containing compressed text;
reconvert the compressed text into a compressed binary stream; and
decompress the binary stream to obtain the first XML document.

EXHIBIT APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.